

**SHASTA COUNTY AIR QUALITY MANAGEMENT DISTRICT**  
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**EVALUATION REPORT**

**REGARDING PROPOSED RENEWAL OF THE  
PACIFIC GAS & ELECTRIC COMPANY  
TITLE V OPERATING PERMIT**

**FOR EQUIPMENT LOCATED AT  
PG&E -- BURNEY COMPRESSOR STATION  
HWY 299 @ COMPRESSOR STATION ROAD  
BURNEY, CALIFORNIA**

**JUNE 25, 2012**

**Donal Jonio  
Air Pollution Inspector**

# **EVALUATION REPORT**

## **Regarding Proposed Renewal Of The Pacific Gas And Electric Company Title V Permit**

### **INTRODUCTION**

The Shasta County Air Quality Management District (District) proposes to renew the Title V operating permit to Pacific Gas and Electric Company (PG&E) for the subject equipment located at the Burney Compressor Station in Burney, California. This evaluation of the proposed permit renewal sets forth the legal and factual basis for the conditions contained in the renewed permit.

### **FACILITY AND OPERATION DESCRIPTION**

The PG&E Burney Compressor Station is a facility that is situated along the Canada to California natural gas transmission pipeline. PG&E operates several natural gas compressor stations in northern California as part of this pipeline. At this compressor station site, the facility operators initially installed two (2) natural gas-fired turbines in 1969. In February 2004, the facility operators removed one of the turbines (K-1) permanently. Since that time, only one turbine (K-2) has been in place and in operation at the facility. As part of an on-going maintenance program, the facility operators change-out the turbine periodically based on hours of operation. In December 2006, the facility operators replaced the K-2 turbine with an identical unit. Since that time, the turbine has been changed-out twice more, in May 2010 and again in October 2011.

The purpose of the compressor station is to increase the pressure of the gas in the pipeline to overcome the effect of upstream frictional losses in the pipeline up to this station in order to maintain the required suction pressure at the next station downstream or at various downstream delivery points. The increase in gas pressure is generated by a centrifugal compressor powered by a natural gas-fired turbine. The centrifugal compressor swirls the incoming upstream natural gas at high speeds to create a high gas momentum. The recharged gas flow is then fed back into the downstream pipeline.

The turbine at this facility has been determined an emissions unit located at a stationary source. The District calculated a NO<sub>x</sub> potential to emit of greater than one-hundred (100) tons per year for this emission unit. NO<sub>x</sub> is a regulated air pollutant. Subsequently, by definition, the facility has been classified a major source and is therefore subject to Title V requirements. Though past results of calculated annual emissions have found less than 100 tons per year emission rates, of any regulated pollutant, the facility operators have not requested synthetic minor status.

## **EMISSION UNIT DESCRIPTION**

The Burney Compressor Station facility operates an emission unit, one (1) stationary natural gas-fired turbine, that has been determined a major source and thereby found subject to Title V requirements. The turbine specifications are:

Make ..... General Electric  
Model # ..... LM 1500  
Serial # ..... 420492  
Power ..... 12,500 bhp

Other emission units located at the facility were found exempted from District permit requirements, per District Rule 2:5, and have also been considered insignificant activities, as defined and listed in District Rule 5 (Attachment 1). For this facility, the exempt emission units (insignificant activities) have been listed in the permit renewal application (Form 5-G) and are listed below:

One (1) Emergency Generator ..... 335 bhp; natural gas-fired  
One (1) Process Heater (Boiler) ..... 1,200,000 btu/hr; natural gas-fired  
One (1) Water Heater ..... 320,000 btu/hr; natural gas-fired  
One (1) Portable Compressor ..... 40 bhp; gasoline-fired  
One (1) Condensate Tank ..... 91 gallon-capacity  
Maintenance Operations (3) -- Solvent Degreasing; Painting; Welding  
Valves & Flanges  
Natural Gas Venting Ports

## **APPLICABLE FEDERAL REQUIREMENTS / SIP REQUIREMENTS**

Based on information submitted in the permit renewal application and upon District review, applicable federal requirements and state implementation plan (SIP) requirements for this facility are as follows:

### **District Rule 1:2 ..... Definitions**

This rule lists definitions used throughout the District rule book. This rule is an administrative rule. However, the District has determined that the environmental benefits are not such that this rule should be included in the proposed renewal of the facility's Title V permit.

### **District Rule 2:1A .... Permits Required**

This rule details the District's requirements for preconstruction authorization and permits to operate. This requirement is included in the proposed Title V permit renewal.

### **District Rule 2:5 ..... Exemptions**

This rule lists the type of devices or operations that the District Air Pollution Control Officer (APCO) may exempt. This rule is an administrative rule. However, the District has determined that the environmental benefits are not such that this rule should be included in the proposed renewal of the facility's Title V permit.

## **APPLICABLE FEDERAL REQUIREMENTS / SIP REQUIREMENTS (cont)**

### **District Rule 2:6 ..... Open Burning**

This rule lists the regulations required to conduct open burning operations. PG&E may conduct open burning operations at this facility and the requirements of rule will be included in the proposed renewal of the facility's Title V permit.

### **District Rule 2:7 ..... Conditions For Open Burning**

This rule lists the regulations required to conduct open burning operations. PG&E may conduct open burning operations at this facility and the requirements of rule will be included in the proposed renewal of the facility's Title V permit.

### **District Rule 2:12 ..... Expiration Of Applications**

This rule states that an Authority To Construct (ATC) shall expire if construction is not commenced within eighteen (18) months after the effective date or shall expire upon issuance of a Permit To Operate (PTO). The rule also states that an application for a PTO existing equipment shall expire two (2) years from the date of filing the application. This rule is an administrative rule. However, the District has determined that the environmental benefits are not such that this rule should be included in the proposed renewal of the facility's Title V permit.

### **District Rule 2:14 ..... Testing Facilities**

This rule requires the applicant of an ATC and/or PTO to provide and maintain testing facilities as are necessary for sampling and testing purposes. This rule is an administrative rule. However, the District has determined that the environmental benefits are not such that this rule should be included in the proposed renewal of the facility's Title V permit.

### **District Rule 2:20 ..... Status Of Permit**

This rule requires that the applicant of an ATC and/or PTO shall notify the District in writing of any significant change in any item of information submitted to the District. This rule is an administrative rule. However, the District has determined that the environmental benefits are not such that this rule should be included in the proposed renewal of the facility's Title V permit.

### **District Rule 2:23 ..... Posting Of Permit To Operate**

This rule requires that a person granted a PTO shall firmly affix such permit in such a manner as to be clearly visible and accessible. This requirement is included in the proposed Title V permit renewal.

### **District Rule 2:24 ..... Defacing Permit**

This rule states that no person shall willfully deface, alter, forge, counterfeit, or falsify a PTO. This requirement is included in the proposed Title V permit renewal.

## **APPLICABLE FEDERAL REQUIREMENTS / SIP REQUIREMENTS (cont)**

### **District Rule 2:25 ..... Public Records / Trade Secrets**

This rule lists the requirements for what may or may not be public records and includes labeling requirements. This requirement is included in the proposed Title V permit renewal.

### **District Rule 3:1 ..... Applicability Of State Laws**

This rule adopts by reference all state and federal rules for air contaminants. This requirement is included in the proposed Title V permit renewal.

### **District Rule 3:2 ..... Specific Air Contaminants**

This rule states that no person shall discharge contaminants from any single source into the atmosphere in concentration amounts greater than those amounts stated in the rule. The rule specifies emission limits for combustion particulate matter, particulate matter less than or equal to ten microns in size, all other particulate matter, particulate matter as a function of process weight, oxides of sulfur (as SO<sub>2</sub>), total reduced sulfur, oxides of nitrogen (as NO<sub>2</sub>), and opacity. The requirements of this rule are included in the proposed Title V permit renewal.

### **District Rule 3:4 ..... Industrial Use Of Organic Solvents**

This rule states that a person shall not discharge into the atmosphere more than forty (40) pounds per day of any photochemically reactive solvent unless the discharge has been reduced by at least 85%. This requirement is included in the proposed Title V permit renewal.

### **District Rule 3:6 ..... Circumvention**

This rule states that emissions cannot be concealed by circumvention. This requirement is included in the proposed Title V permit renewal.

### **District Rule 3:9 ..... Recommendation Of Air Pollution Control Officer**

This rule states that no suggestion or recommendation of the APCO shall be deemed a guaranty that the recommended device or process will result in compliance with these rules. This rule is an administrative rule. However, the District has determined that the environmental benefits are not such that this rule should be included in the proposed renewal of the facility's Title V permit.

### **District Rule 3:11 ..... Local Rules**

This rule states that any city or public agency, having authority to do so, may enact by ordinance more restrictive rules than contained in the District rule book. Since this permit is a federal permit and does not concern local rules, the District has determined that the environmental benefits are not such that this rule should be included in the proposed renewal of the facility's Title V permit.

## **APPLICABLE FEDERAL REQUIREMENTS / SIP REQUIREMENTS (cont)**

### **District Rule 3:17 ..... Organic Solvent Degreasing Operations**

This rule requires degreasing operations to meet design and operating specifications. The District has determined that these facility operations are insignificant. Therefore, the District has determined that the environmental benefits are not such that this rule should be included in the proposed renewal of the facility's Title V permit.

### **District Rule 5 ..... Additional Procedures For Issuing Permits To Operate For Sources Subject To Title V Of The Federal Clean Air Act Amendments of 1990**

This rule lists the requirements of the Title V program. All requirements imposed by this rule and applicable to this facility are included in the proposed Title V permit renewal.

### **40 CFR 60 -- Subpart A ..... General Provisions {New Source Performance Standards}** Section 60.1 ..... Applicability Section 60.5 ..... Determination Of Construction Or Modification Section 60.14 ..... Modification Section 60.15 ..... Reconstruction

Section 60.1 states that the provisions of this part apply to the owner/operator of any stationary source of which the construction or modification commenced after the publication date (10/03/77) of this subpart. Due to the fact that the facility was constructed in 1969, the District has determined that the facility owner/operator is not subject to the requirements of this subpart.

Section 60.5 states that the determination of construction (including reconstruction) or modification or the commencement thereof will be made by the Administrator at the request of the operator. The operator has not requested the Administrator to make such a determination with respect to the identical replacements of the subject turbine replacement. Therefore, the permit shield contained in the draft renewal of the facility's Title V permit will specifically preclude this section.

Section 60.14 defines a modification. The replacement of the subject turbine in both May 2010 and in October 2011 utilized identical units with the exception of the serial number. The replacement of the subject turbine does not meet the definition of a modification since the replacement of the subject turbine was a physical change to the existing facility however there was no increase in the facility emission rate. Additionally, the replacement of the subject turbine does not meet the definition of a modification since the replacement of the subject turbine occurred as a part of routine maintenance.

Section 60.15 defines a reconstruction. The replacement of the subject turbine does not meet the definition of a reconstruction because an identical turbine running in a lightly overhauled condition would cost between \$50,000 and \$100,000 in relation to an entirely new facility is estimated to cost between \$45,000,000 and \$55,000,000 thereby the fixed capital cost of new components would be approximately 1%, a percent value far less than the 50% stated in the definition.

## **APPLICABLE FEDERAL REQUIREMENTS / SIP REQUIREMENTS (cont)**

### **40 CFR 60 -- Subpart GG ..... Stationary Gas Turbines**

This subpart applies to any stationary gas turbine which commences construction, modification, or reconstruction after October 3, 1977. Construction of the facility commenced in 1969 which predates the applicability date of this subpart.

### **40 CFR 60 -- Subpart KKKK ..... Stationary Combustion Turbines**

This subpart applies to any stationary combustion turbine which commences construction, modification, or reconstruction after February 18, 2005. Construction of the facility commenced in 1969 which predates the applicability date for either of this subpart.

### **40 CFR 64 ..... Compliance Assurance Monitoring**

This regulation was developed to provide reasonable assurance that facilities comply with emissions limitations by monitoring and maintenance of their emission control devices. The District does not require emission control devices for any operation at this facility. Therefore, the District has determined that this regulation is not applicable to this facility.

### **40 CFR 70 ..... State Operating Permit Programs Section 70.6 (g) ... Permit Content**

Section 70.6 establishes requirements for facility operator actions regarding excess emissions during emergency situations. This requirement shall be included in the Title V permit renewal.

### **40 CFR 82 ..... Protection Of Stratospheric Ozone Section 82.156 .... Required Practices Section 82.158 .... Standards For Recycling And Recovery Equipment Section 82.161 .... Technician Certification**

Section 82.156 requires that all persons disposing of certain appliances or opening certain appliances for maintenance, service, or repair must evacuate the refrigerant to a certified recovery or recycling machine. This requirement is included in the proposed Title V permit renewal.

Section 82.158 requires that all manufacturers and importers of recycling and recovery equipment intended for use during the maintenance, service, or repair of certain appliances must be certified by an approved equipment testing organization to meet the requirements. These requirements are included in the proposed Title V permit renewal.

Section 82.161 requires that technicians must be certified by an approved technician certification program. These requirements are included in the proposed Title V permit renewal.

## **REQUIREMENTS THAT DO NOT APPLY**

Based on information submitted in the permit renewal application and upon District review, rules and regulations that do not apply for this facility are as follows:

### **District Rule 2:4 ..... Permit to Sell Or Rent**

This rule pertains to the use of incinerators. There are no incinerators at this facility. Therefore, this rule is not applicable to this facility.

### **District Rule 2:8 ..... Agricultural Burning**

This rule applies to agricultural burning operations. This facility does not conduct agricultural operations. Therefore, this rule is not applicable to this facility.

### **District Rule 2:28 ..... Prevention Of Significant Deterioration**

This provisions of 40 CFR Section 52.12 are made part of the District rules and regulations. This regulation sets the procedures for the review of new or modified stationary sources for federal attainment pollutants. This regulation is not applicable to this facility based on current operation parameters. Therefore, this rule is not applicable to this facility.

### **District Rule 3:3 ..... Gasoline Loading, Transfer, And Dispensing**

This rule applies to the loading, transfer, and dispensing of gasoline into and from a 260 gallon or more stationary storage tank. This facility does not have a gasoline storage tank. Therefore, this rule is not applicable to this facility.

### **District Rule 3:5 ..... Agricultural Uses**

This rule exempts discharges in the course of applying agricultural materials. This facility does not apply agricultural materials. Therefore, this rule is not applicable to this facility.

### **District Rule 3:12 ..... Reduction Of Matter Of Animal Origin**

This rule mandates controls for reducing animal matter. This facility does not reduce animal matter as part of the process. Therefore, this rule is not applicable to this facility.

### **District Rule 3:14 ..... Petroleum Solvent Dry Cleaners**

This rule mandates control and operating practices for dry cleaning operations. This facility does not have a dry cleaning machine. Therefore, this rule is not applicable to this facility.



## **REQUIREMENTS THAT DO NOT APPLY (cont)**

District Rule 3:15 ..... Cutback And Emulsified Asphalt

This rule applies to the manufacture, sales, use, and application of cutback and emulsified asphalt. This facility does not perform these practices. Therefore, this rule is not applicable to this facility.

40 CFR 63 -- Part T ..... Halogenated Solvent Cleaning Operations { NESHAP }

This part requires degreasers using certain halogenated solvents to meet certain requirements. The degreasing operations at this facility does not use solvents regulated by the standard. Therefore, this regulation is not applicable to this facility.

Federal Clean Air Act -- Section 112(r) ..... Risk Management Plan Preparation And Registration

This regulation affects facilities at which certain substances are present above the specified annual threshold. None of the compounds present at this facility were found to be above the thresholds listed in this section. Therefore, this regulation is not applicable to this facility.

## **CHANGES AT RENEWAL**

- (1) One (1) condensate tank {91 gallon-capacity} has been added to the operating permit equipment list as an insignificant emission source.